men figured, but it is so different from the genuine *obscurus*, that I have but little hesitancy in referring it to this species.

As the Floridan form is a well-marked and distinct species, it must be recognized and I take pleasure in associating with it the name of Dr. Dall, who first called attention to its occurrence in Florida.

(*To be continued.*)

A NEW SPECIES OF MITRA FROM CALIFORNIA.

BY WM. HEALEY DALL.

MITRA ORCUTTI, new species.

Shell small, white, mottled with yellow brown, with five whorls of which the white smooth blunt nucleus comprises one; suture distinct, whorls moderately convex; spiral sculpture of (between the sutures four, on the last whorl about a dozen) strong rounded close-set cords closely undulated behind the periphery by numerous low narrow axial riblets with about equal interspaces; the cords in front of the periphery are not undulated, but extend to the end of the canal; there are also very fine axial striae in the interspaces; aperture narrow, simple, the pillar with two plaits, the canal hardly differentiated. Height of shell 5.6; of last whorl 2.6; diameter 2.7 mm. U. S. N. Mus. Cat. No. 334567. La Jolla, near San Diego, Cal.; C. R. Orcutt.

CHANGES IN WESTERN MOLLUSCAN FAUNAS.

BY JUNIUS HENDERSON.

In 1889 Professor T. D. A. Cockerell (Jour. Conch., VI, 61) reported the following species as obtained by Mr. Charles T. Simpson in Lodgepole Creek, Northeastern Colorado:

Lampsilis anodontoides (Lea).
Lampsilis ventricosa (Barnes).
Lampsilis luteola (Lam.).
Anodonta grandis gigantea Lea.

Except the *Anodonta* these species have not yet been recorded anywhere else in Colorado, though we have in the University of Colorado Museum unreported specimens of the *Anodontoides* from Julesburg, Denver and Boulder. Possibly *Lampsilis* no longer lives in the State. In 1912, in company with Dr. Max M. Ellis, I visited Lodgepole Creek and searched the stream from the northern state boundary to its junction with South Platte River. We found no Unionidae except some dead shells of *Anodontoides*. Perhaps that species was still living in a deep pool a few rods south of the state boundary, though in seining it for fishes we found none. A rancher near by told us there were "clams" in the pool. The rest of the stream was shallow and so narrow one could step or jump over it in most places. Probably later in the summer of dry, hot seasons, when the natural flow was diminished and the demand for irrigation water is great, it may entirely dry up in its lower course. I wrote to Mr. Simpson, calling his attention to present conditions and the evident disappearance of the *Lampsilis*, and asking what the conditions were when he was there. He replied that as he recalled it the creek was then from 6 to 10 feet wide, but that the taking of water from the South Platte for irrigation had caused the river to go dry at Julesburg during his three years residence, and suggesting that the same thing had likely since happened in the creek. This seems exceedingly probable. Mr. Simpson also added: "The *Unio anodontoides* is probably *Lampsilis fallaciosus*, not then recognized." My intention in 1912 was to publish an account of our experience, but it was side-tracked and finally passed out of mind. It has recently been brought forward by finding in the report of the Fremont Expedition, 1845, p. 25, the statement that on July 6, 1842, Lodgepole Creek was a "clear, handsome stream" (hence at low water stage), with a "uniform breadth of twenty-two feet and six inches in depth." This confirms the supposed diminution of water in the stream in recent times.

In 1906 the bed of the lower portion of Crow Creek, east and northeast of Greeley, Colorado, was dry, except just after storms, the water percolating through the deep sand in the channel, a characteristic of many western streams. Up stream, just above

where the water disappeared, was a series of clear, rather deep pools, called "water holes," connected by a tiny, clear rivulet. In one of these pools was collected that year the type lot of *Sphaerium hendersoni* Sterki. Then came the "boom" in dry lands in Eastern Colorado. Scores of small tracts of prairie sod, many of them on steep slopes, were broken by the settler's plow. The dry soil, no longer held together by the sod, was carried into the valley by summer storms, filling many of the pools and depositing a thick coat of mud over the whole stream bed. In June, 1912, I revisited the locality, and found no clear water at all, and not a single mollusk of any species. The sluggish stream carried a heavy load of silt so fine it would not settle. Probably the Sphaerium is extinct at the type locality.

It is likely that innumerable changes in the faunas of the West are occurring as a result of the settlement of the country and consequent changes in environment. This is known to be true of birds and mammals. For this reason it is desirable that biological work in this vast region be pushed as rapidly as possible, to provide data for future estimates of biological changes.

NOTES.

Hodgson Collection. I have just secured the collection of the late Chas. S. Hodgson, containing some 2500 to 3000 species, a few fossils and books. Besides his work in Illinois he did considerable collecting in other places and added to the collection by exchange and purchase.—A. A. Hinkley.

Dr. G. Dallas Hanna, who for eight years has been an assistant in the United States Bureau of Fisheries, has been appointed curator of invertebrate paleontology in the California Academy of Sciences. Dr. Hanna has for seven seasons been engaged in scientific work on the Pribilof Islands, Alaska, having taken the census of the fur seal herd for five consecutive years. He brings to the museum of the Academy his collection of mollusks which numbers about 100,000 specimens.

Fluke in Philomycus. It may be of interest to the readers